UNITED STATES PATENT AND TRADEMARK OFFICE

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10/734,390	12/12/2003	Ramin Oliver Assadollahi	Assadollahi PIM	9756

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12 December 2003</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-9</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>12 December 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This action is responsive to application filed on December 12, 2003 in which Claims 1-9 are presented for examination.

Status of Claims

Claims 1-9 are pending in the case. Claims 1 and 9 are the independent Claims.
Claims 1-8 are rejected under 35 U.S.C. 101.
Claims 1-9 are rejected under 35 U.S.C. 103(a).

Specification Objection

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter. The Claimed invention is

directed to functional descriptive material and clearly not embodied on a

computer readable medium and meets the IEEE definition for data structure (a

physical or logical relationship among data elements, designed to support

specific data manipulation function) (See MPEP 2106). When functional

descriptive material is recorded on some computer-readable medium it will

become structurally and functionally interrelated the medium and will be statutory

in most cases since the use of technology permits the function of the descriptive

material to be realized. See In re Lowry, 32 F.3D 1579, 32 USPQ2d 1031, 1035

(Fed. Cir 1994) and Warmerdam, 33 F.3d at 1360-61, 31 USPQd at 1759. A

descriptive material is functional if the specific arrangement of data enables a

computer to accomplish some useful result arising from the arrangement of the

data the data structure. However, even if the descriptive material of claims 1-8

are functional, it is not clearly defined as being embodied in a computer readable

medium and is therefore not statutory. See Warmerdam, 33 F.3d at 1360, 31

USPQ2d at 1759.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Greene, US 6,377,925 in further view of Dumais, US 20040267700.

Regarding Claim 1, Greene discloses the claimed aspect of a personal

information manager comprising: a data input device receiving an audio data

stream, and decoding the data stream into text, wherein the system of the

present invention converts the input speech to a text format, and then translates

the text to any of three other forms, including sign language, animation and

computer generated speech. (Greene, See Abstract). Furthermore, in FIG. 6A,

122 illustrates Convert Speech or other input to Text.

Greene discloses the claimed aspect of a dialog manager having a record

mode and a dialog mode, an information storage/retrieval module storing and

retrieving data from a database and said information storage/retrieval module

executing data processing requests specified by said dialog manager in FIG. 1,

wherein FIG. 1 illustrates the hardware of an electronic translator 10 that is

constructed in accordance with a preferred embodiment of the present invention.

The hardware includes a personal computer 12 comprised of a central

processing unit (CPU) 14 and one or more memory chips 16 mounted on a

motherboard 18. Preferably, the CPU has a clock speed of 500 MHz or greater to

insure that multiple translations of speech or text data can be made

simultaneously in real time, although a processor having a somewhat slower

clock speed could also be used. Also mounted on the motherboard 18 are a

keyboard/mouse input circuit 20, a sound card 22, a PCMCIA card 23, a video

card 24 and a modem 25 or other communications interface for connecting the

translator 10 to the Internet, for example. The CPU 14 is also interfaced to a hard

drive 26. As is also conventional all of the foregoing elements are preferably

housed in a housing 28, such as a conventional PC desktop or tower housing, or

a laptop housing. (Greene, Column 4, lines 28-45). Furthermore, the PC 12

receives multiple inputs from a number of peripheral devices, including a

keyboard 30 and a mouse 31 via the keyboard/mouse input circuit 20, a

microphone 32 via the sound card 22, a video camera 34 via the video card 24

and a transmitter 35 in a standard or cellular telephone 36 via the PCMCIA card

23, although the sound card 22 could also be used for this purpose. The sound

card 22 also supplies output signals to a number of audio devices, including one

or more speakers 38, one or more assisted learning devices including a cochlear

implant 40 and a hearing aid 42, while the PCMCIA card 23 supplies audio

signals to a receiver 43 in the telephone 36 (again, the sound card 22 could also

be used for this purpose). (Greene, Column 4, lines 46-58).

Greene discloses the claimed aspect of said dialog manager examining said

decoded text received data processing request, said dialog manager immediately

queuing data processing requests in FIG. 6A, wherein after the speech is

converted to text in 122, the text is parsed and analyzed and words are put in

queue.

Greene discloses the claimed aspect of an output module converting text

received from said dialog module into speech and outputting said speech in

response to a data processing request in FIG. 1, wherein a text-to-audio sound

translator 50 is illustrated to convert text into speech. Furthermore, in FIG. 6D

word from the queue retrieved 150 and searched in the database 154.

Greene does teach the claimed aspect of to determine whether it contains an

explicit or an implicit data processing requests and immediately passing explicit

data processing requests and queuing implicit said dialog manager passes

implicit processing requests to said information storage/retrieval module during

periods of inactivity. However Dumais discloses the claimed aspect of to

determine whether it contains an explicit or an implicit data processing requests

and immediately passing explicit data processing requests and queuing implicit

said dialog manager passes implicit processing requests to said information

storage/retrieval module during periods of inactivity, wherein a systems and

methods providing content-access-based information retrieval is introduced.

Information items from a plurality of disparate information sources that have been

previously accessed or considered are automatically indexed in a data store,

whereby a multifaceted user interface is provided to efficiently retrieve the items

in a cognitively relevant manner. Input options include explicit, implicit, and standing queries for retrieving data along with explicit and implicit tagging of items for ease of recall and retrieval. In one aspect, an automated system is provided that facilitates concurrent searching across a plurality of information sources. (Dumais, See Abstract).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Greene's speech based communication with Dumais's explicit, implicit and standing queries, because this would allow to prioritize processes.

Regarding Claim 2, most of the limitations have been met in the rejection of Claim 1. See details for Claim 1 rejection. Greene discloses the claimed aspect of the said dialog manager identifies data processing request during said record mode by comparing said decoded text against a list of reserved words in FIG. 6D, wherein the retrieved word is compared and identified in 154 and 156.

Greene does not teach the aspect of an explicit data identification. However, Dumais discloses the claimed aspect of an explicit data identification, wherein explicit or an implicit data processing requests and immediately passing explicit data processing requests and queuing implicit said dialog manager passes implicit processing requests to said information storage/retrieval module during periods of inactivity, wherein a systems and methods providing content-access-based information retrieval is introduced. (Dumais, See Abstract).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Greene's speech based communication with Dumais's explicit, implicit and standing queries, because this would allow to prioritize processes.

Regarding Claim 6, most of the limitations have been met in the rejection of Claim 1. See details for Claim 1 rejection. Greene does not specifically teach the claimed aspect of a global word table. However Dumais discloses the claimed aspect of a global word table containing a list of all of the words stored in the database and said dialog manager examining decoded text received from said data input device to determine whether it matches to a given said word in said global word table in FIG. 1 and FIG. 9, wherein a client and server database are illustrated. Furthermore, a search component responds to a search query, initiates a search across the indexed data, and outputs results. (Dumais, See Abstract). Applicant should duly note it is well known in the art at the time of the invention to provide a request for clarification is queued if the decoded text does not match any word in said global word table, especially search engines provide clarification message such as "DID YOU MEAN THIS", to warn the users whether there is a spelling or mispronunciation error in the submission since it was not found in the database.

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Greene's speech based communication with Dumais's

global word table, because this would allow global update on the network.

Claims 3-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Greene, US 6,377,925 in view of Dumais, US 20040267700 and in further

view of Dunning US 7,162,482.

Regarding Claim 3, most of the limitations have been met in the rejection of

Claim 1. See details for Claim 1 rejection. Greene discloses the claimed aspect

of the said dialog manager identifies data processing request during said record

mode by comparing said decoded text against a list of reserved words in FIG. 6

D, wherein the retrieved word is compared and identified in 154 and 156.

Greene discloses the claimed aspect of said dialog manager examining said

decoded text received data processing request, said dialog manager immediately

queuing data processing requests in FIG. 6A, wherein after the speech is

converted to text in 122, the text is parsed and analyzed and words are put in

queue.

Greene does not teach the aspect of an explicit data identification. However,

Dumais discloses the claimed aspect of an explicit data identification, wherein

explicit or an implicit data processing requests and immediately passing explicit

data processing requests and queuing implicit said dialog manager passes

implicit processing requests to said information storage/retrieval module during periods of inactivity, wherein a systems and methods providing content-access-based information retrieval is introduced. (Dumais, See Abstract).

Greene and Dumais do not teach the claimed aspect of assigning a match score to each of said predefined data processing requests and selecting said predefined data processing request having a highest matching score as said data processing request in However, Dunning discloses the claimed aspect of identifying a data processing request during said dialog mode by comparing said decoded text against a list of predefined data processing requests, assigning a match score to each of said predefined data processing requests and selecting said predefined data processing request having a highest matching score as said data processing request in FIG.8, wherein words are formed based on the frequency of the groups of letters. If a letter or group of letters appears within certain threshold frequency limits, then the letter or group of letters are organized to form words. Once an index has been built it can be used to identify an unknown signal. The unknown signal can also be broken into documents, quantized, and grouped into words. Furthermore, the words in the unknown documents can be compared to the words in the known documents in order to find a match and identify an unknown piece of music by its tag information. (Dunning, Column 9, lines 7-13).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Greene's speech based communication with Dumais's

explicit, implicit and standing queries, and Dunning's assigning a highest matching score because this would allow effective information retrieval.

Regarding Claim 4, most of the limitations have been met in the rejection of Claim 3. See details for Claim 3 rejection. Greene and Dumais do not teach the claimed aspect a threshold. However, Dunning discloses the claimed aspect of said highest matching score is less than a threshold score said dialog manager passes an instruction to said output module to prompt the user to select a given data processing request from among a selected number of said predefined data processing requests, wherein FIG. 8 shows a method of forming a word from letters. Words are formed from a series of letters in a given document. In one embodiment, there are two thresholds that together define whether a word is considered "frequently appearing" in each document. The threshold values are chosen such that the words yield an accurate, fast, and memory-efficient result of identifying an unknown signal. The first threshold is a minimum number of appearances of a word in a document. The first threshold is referred to as t.sub.1. In one embodiment, the second threshold is a maximum number of appearances of a word in a document. The second threshold is referred to as t.sub.2. A word is considered to be "frequently appearing" if its frequency lies between the thresholds. (Dunning, Column 9, lines 14-27). Furthermore, depending on the threshold letter grouping is provided to the user.

It would be obvious to one of ordinary skill in the art at the time of the invention to combine Greene's speech based communication with Dumais's

explicit, implicit and standing queries, and Dunning's threshold aspect because this would allow to effective separability and prediction.

Regarding Claim 5, most of the limitations have been met in the rejection of Claim 1. See details for Claim 1 rejection. Dunning discloses the claimed aspect of otherwise(>=threshold) passes characteristic words selected from said retrieved data records, and said dialog manager instructs said output module to prompt the user to select a given said characteristic word used refine the data processing request, wherein FIG. 8 shows a method of forming a word from letters. Words are formed from a series of letters in a given document. In one embodiment, there are two thresholds that together define whether a word is considered "frequently appearing" in each document. The threshold values are chosen such that the words yield an accurate, fast, and memory-efficient result of identifying an unknown signal. The first threshold is a minimum number of appearances of a word in a document. The first threshold is referred to as t.sub.1. In one embodiment, the second threshold is a maximum number of appearances of a word in a document. The second threshold is referred to as t.sub.2. A word is considered to be "frequently appearing" if its frequency lies between the thresholds. (Dunning, Column 9, lines 14-27). Furthermore, depending on the threshold letter grouping is provided to the user.

Applicant should duly note that it is well known in the art at the time of the invention to provide a listing of result even if the data record retrieved is below the threshold rather than saying the information requested was not found.

Regarding Claim 7, most of the limitations have been met in the rejection of

Claim 1. See details for Claim 1 rejection. Dunning discloses the claimed aspect

of a local word table; said information storage/retrieval module stores atoms of

data, each said atom having a unique identifier; and said local word table

containing a list of words contained in each atom of data and the number of times

each word appears in a given atom in FIG. 1 and FIG.8, wherein words are

formed based on the frequency of the groups of letters. If a letter or group of

letters appears within certain threshold frequency limits, then the letter or group

of letters are organized to form words. Once an index has been built it can be

used to identify an unknown signal. The unknown signal can also be broken into

documents, quantized, and grouped into words. Furthermore, the words in the

unknown documents can be compared to the words in the known documents in

order to find a match and identify an unknown piece of music by its tag

information. (Dunning, Column 9, lines 7-13).

Dunning inherently discloses the claimed aspect of atomization of data

content. If even not disclosed inherently Vethe in 5,991,765 discloses the

claimed aspect of atomization of data and furthermore linking of atoms to create

more complex data in the database.

Applicant should duly note that it is well known in the art at the time of the

invention to show a predetermined number of result and if the number of search

results exceeds the predetermined number an additional criteria is given to

further refine the search result.

Regarding Claim 8, most of the limitations have been met in the rejection of Claim 7. See details for Claim 7 rejection. The rejection for Claim 5 applies to Claim 8. See rejection details for Claim 5. Applicant should duly note that the selected word for futher refinement does appear in the search string because if it was in the search string before, it would have been searched for.

Regarding Claim 9, the steps to achieve an information device achieves the steps for an information processing method. The rejection for Claims 1-8 apply to Claim 9. See rejection details for Claim 1-8.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Flinchem, et al., US 6,307,548 B1, 10/23/2001, "Reduced Keyboard Disambiguating System, Global and local Dictionary FIG. 7",

2) Kay et al., US 20050017954 A1, 01/27/2005, "Contextual Prediction of User Words and User Actions".

3) Crandall, et al., US 6,321,228 B1, 11/20/2001, "Internet Search System for Retrieving Selected Results from a Previous Search".

4) Min et al., US 6,633,868, 10/14/2003, "System and Method for Context-based document Retrieval".

5) Tetsumoto, US 6,823,311 B2, "Data Processing System for Vocalizing

Web Content".

6) Gould, et al., US 6,839,669, 01/04/2005, "Performing actions identified

in recognized speech, frequency, threshold".

7) Everhart, US 6,928,614, 08/09/2005, "Mobile Office with Speech

Recognition".

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to ECE HUR whose telephone number is 571

270-1972. The examiner can normally be reached on MONDAY-THURSDAY
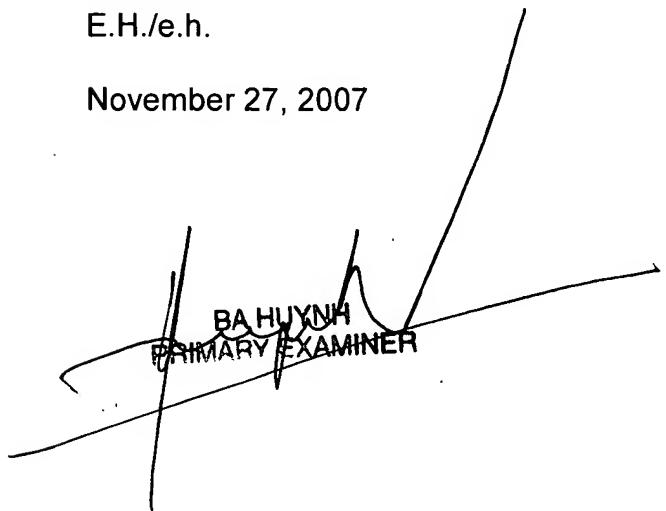
7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, WEILUN LO can be reached on 571 272-4847. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

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Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

Ece Hur
E.H./e.h.

November 27, 2007

BA HUYNH
PRIMARY EXAMINER